

CLAIMS

What is claimed is:

- 5 1. A fiber optic device comprising:
 an optical fiber;
 a fiber core within the optical fiber having a
fiber core cladding interface; and
 an angled polished end surface on an end of the
10 optical fiber, the polished end surface at an acute angle
other than 45 degrees from a side of the fiber.
2. The apparatus of claim 1 further comprising:
 an active device operationally coupled to the
15 optical fiber such that light from the active device is
attenuated by the polished surface and reflected into the
fiber core.
3. The apparatus of claim 2 wherein the active
20 device is a vertical cavity surface emitting laser.
4. The apparatus of claim 2 wherein the active
device is a light emitting diode.
- 25 5. The apparatus of claim 2 wherein the polished
end surface is at an angle between approximately 39 and 45
degrees from a side of the fiber.
6. The apparatus of claim 2 wherein the polished
30 end surface is at an angle between approximately 45 and 51
degrees from a side of the fiber.
7. The apparatus of claim 2 wherein the polished

end surface is at an angle of approximately 40 degrees from a side of the fiber.

8. The apparatus of claim 2 wherein the polished
5 end surface is at an angle sufficient to avoid saturation of an opto-electronic receiver.

9. A fiber optic device comprising:
a plurality of optical fibers operationally
10 coupled together to form an opto-electronic array module;
a fiber core within each of the optical fibers,
the fiber core having a fiber core cladding interface; and
an angled polished end surface on at least two of
the optical fibers, the polished end surface at an acute
15 angle other than 45 degrees from a side of the fiber.

10. The apparatus of claim 9 further comprising:
an active device operationally coupled to the
optical fibers such that light from the active device is
20 attenuated by the angled polished end surface and reflected into the fiber core.

11. The apparatus of claim 10 wherein the active
device is a vertical cavity surface emitting laser.
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12. The apparatus of claim 10 wherein the active
device is a light emitting diode.

13. The apparatus of claim 10 wherein the
30 polished end surface is at an angle between approximately 39 and 45 degrees from a side of the fiber.

14. The apparatus of claim 10 wherein the

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polished end surface is at an angle between approximately 45 and 51 degrees from a side of the fiber.

15 15. The apparatus of claim 10 wherein the polished end surface is at an angle of approximately 40 degrees from a side of the fiber.

10 16. The apparatus of claim 10 wherein the polished end surface is at an angle sufficient to avoid saturation of an opto-electronic receiver.

15 17. A method for attenuating the amount of light entering an optical fiber comprising the steps of:
receiving light into an optical fiber; and
reflecting the light off a polished end surface of the optical fiber into a core of the optical fiber, the polished end surface at an acute angle other than 45 degrees from a side of the optical fiber, thereby attenuating the light.

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18. The method of claim 17 wherein the polished end surface is at an angle sufficient to avoid saturation of an opto-electronic receiver.

25 19. A method for attenuating the amount of light entering an optical fiber comprising the steps of:
~~polishing and~~ ^{polishing and} end surface of the optical fiber at an acute angle other than 45 degrees from a side of the optical fiber; and

30 reflecting light off the polished end surface of the optical fiber into a core of the optical fiber.

20. The method of claim 19 wherein the polished

end surface is at an angle sufficient to avoid saturation of an opto-electronic receiver.

21. A method of coupling light between an
5 optical fiber and an active device comprising:
receiving light into the optical fiber from the
active device; and

reflecting the light off a polished end surface
of the optical fiber into a core of the optical fiber, the
10 polished end surface at an acute angle other than 45
degrees from a side of the optical fiber.

22. The method of claim 21 wherein the polished
end surface is at an angle sufficient to avoid saturation
15 of an opto-electronic receiver.

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